REMARKS

In accordance with the above amendments, claims 135-144, 152-161 and 168-176 have been canceled and claims 183, 193, 194, 203 and 204 have been amended. Claims 183-211 remain under consideration in the present application. No claim has been allowed.

The undersigned and English representative, John S. Miles, PhD, wish to thank Examiner Woitach for graciously enabling a three-way telephone interview on August 9, 2006 to clarify and discuss certain issues pertaining to the present application.

The claims stand provisionally rejected under the judicially created doctrine of obviousness-type double-patenting as being unpatentable over co-pending application Serial No. 10/842,850. By a paper dated October 16, 2006, co-pending application Serial No. 10/842,850 has been expressly abandoned. A copy of that paper is attached hereto as an Exhibit A. Accordingly, the Examiner is requested to withdraw the rejection based on double patenting.

In response to the Examiner's remarks in the Advisory Actions of August 28, 2006 and October 30, 2006 and issues raised in the Interview of August 9, 2006 (Interview Summary dated August 17, 2006), the applicants offer certain additional amendments and explanatory remarks for consideration.

With the cancellation of claims 1-182, only claims 183-211

remain in the present application.

As indicated, it is the applicant's intent that of all these claims require that both the lentiviral vector DNA and the xenogeneic polynucleotide be incorporated in the genome of all the claimed transgenic animals. This being the case, it is believed that the rejection of the claims under 35 USC § 102(e) based on Brinster et al (USPN 5,858,354) and Deboer et al (USPN 5,741,957) and the rejection of the claims under 35 USC § 102(b) based on Leder et al. (USPN 4,736,866) have been overcome. This is in accord with the understanding of the undersigned attorney based on earlier discussions and for even stronger reasons in view of the present amendments discussed next.

Claims 183, 193, 194, 203 and 204 have been further amended to indicate that the polynucleotides are xenogeneic and that both the released lentiviral vector and the xenogeneic polynucleotide are incorporated into the genome. Thus, the claimed transgenic animals are required to contain both the lentiviral vector and the xenogeneic polynucleotide. Such transgenic animals are believed to be undisclosed in the art.

Support for the amended language can be found in the specification, or example, on page 8, line 7, page 10, lines 6-8 and page 12, lines 22-26. No new matter has been added.

In the Advisory Action, claim 183 has been interpreted to encompass a cat infected with FIV where FIV can be found in the

germ cells. As amended, claim 183 is believed to clearly distinguish over FIV-infected cats for several reasons.

Firstly, FIV-infected cats do not contain a xenogeneic polynucleotide. Rather, FIV only has any real existence in the cat population or when infecting cat cells and so no part of it can be considered xenogeneic.

Secondly, FIV-infected cats would contain FIV principally in their T cells whereas the non-human transgenic vertebrate of claim 183 has the lentiviral vector and xenogeneic polynucleotide only in its testis.

References newly cited with the Interview Summary

The Examiner has cited Naldini et al (1996) Proc. Natl. Acad. Sci. USA 93, 11382-11388 with the Interview Summary. This paper discloses lentiviral vector injected into adult rat brains.

These rats contain lentiviral vector only in their brain. In contrast, the non-human vertebrate of claim 183 contains lentivirus (+ xenogeneic polynucleotide) in the testis only (and not in other tissues, including the brain). The non-human vertebrate of claim 185 contain lentivirus (+ xenogeneic polynucleotide) in substantially all somatic cells since the claim 185 animal has been bred from the claim 183 animal and transgenic progeny selected.

Thus, the transgenic animals of claims 183 and 185 are believed to distinguish over Naldini et al.

The Examiner has also cited Blömer et al (1997) J. Virol. 71, 6641-6649 with the Interview Summary. This paper discloses the localized transfer of a lentiviral vector into neurons of an adult rat.

As for Naldini et al (1996) discussed above, the lentiviral vector is restricted to the adult neuron and there is no disclosure of an animal containing the lentiviral vector (+xenogeneic polynucleotide) only in the testis, as in claim 183, or of an animal in which substantially all somatic cells contain lentiviral vector (+xenogeneic polynucleotide).

Thus, the transgenic animals of claims 183 and 185 are believed to distinguish over Blömer et al.

The Examiner has also cited Jordan et al (1995) J. Virol. 69, 7328-7333 with the Interview Summary. This paper relates to FIV infection of cats. Claims 183 and 185 are distinguished from this as discussed above.

It is believed, in view of the present amendments and explanatory remarks, that the present claims distinguish over all of the references of record. Accordingly, the Examiner is

respectfully requested reconsider and withdraw the present rejections and allow the claims.

Respectfully submitted,

NIKOLAI & MERSEREAU, P.A.

C. G. Mersereau
Registration No. 26205
900 Second Avenue So.
Suite 820
Minneapolis, MN 55402
(612) 339-7461